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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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000570	05/15/99	GRUNDEL	H 8056-80 (E187)
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000570

QM31/0623

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EXAMINER

PHAN, H

ART UNIT

PAPER NUMBER

3738

DATE MAILED: 06/23/99

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/079,618

Applicant(s)
Grundeis et al.

Examiner
Hieu Phan

Group Art Unit
3738



☒ Responsive to communication(s) filed on May 15, 1998

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-6 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-6 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☒ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 2

☐ Interview Summary, PTO-413

☒ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morrey et al.(U.S Patent 4,608,055) in view of Caldarise et al.(U.S. Patent 5,897,592) and further in view of Gradinger et al.(U.S. Patent 5,433,750).

3. Morrey et al. disclosed an artificial hip joint with the following features: 1) the shell is implanted in the upper region of the femur but below the greater trochanter without using cement(column 7 lines 29-35) 2) the proximal end of the shell is able to connect with an artificial spherical joint part(figure 1) 3) the distal end of the shell have a caudal shape(figure 1) 4) the exterior of the shell is partially covered with a fibrous metal pad(column 5 lines 18-30) 5) the femoral component have a basalar neck portion 15 connected to the neck portion 13(column 5 lines 62-68 and figure 1) 6) the stem portion 50 is formed with a conical taper from its proximal portion 51 up to the beginning of the bend of the stem portion(figure 1). But Morrey et al. failed to mention the artificial hip joint having the following features: 1) the distal portion 53 is partially covered with a fibrous metal pad 2) the fibrous metal is formed on the shell exterior sides in caudal and cranial directions with a width of about 2-6 mm 3) the fibrous

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metal is formed on the shell exterior sides in ventral and dorsal directions with a width of about 1-2.5 mm 4) the fibrous metal is formed on the proximal face 31 of the basalar neck portion.

4. Caldarise et al. disclosed a prosthesis with some macro-textured surface regions that partially cover the exterior surface and the distal end of the prosthesis (figure 1). The macro-textured surface regions are located at the distal end in order to promote tissue ingrowth and improve fixation of the prosthesis within the body.

5. Gradingner et al. disclosed an artificial hip joint with an open-mesh three-dimensional structure at least partly covering its surface (figure 1). The mesh covering the prosthesis has different diameter sizes ranging from 1.5-6mm (column 2 lines 32-37). The surface of a prosthesis is divided into three zones A, B and C (figure 1). The largest mesh size of the surface structure is in zone A; in zone B a medium mesh size; and finally in zone C the smallest mesh size. The purpose of the distinct zones is to promote cells with different sizes to grow.

5. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the teachings of Caldarise et al. and Gradingner et al. to modify the artificial hip joint of Morrey et al. to have the following features: 1) the open-mesh three-dimensional structure partly covering the distal end of the prosthesis would improve the fixation of the artificial joint to the femur 2) the surface sides facing in the caudal and cranial directions are covered with a mesh that has a width ranging from about 2-6mm and the surface sides facing in the ventral and dorsal directions are covered with a mesh that has a width ranging from about 1-2.5mm would promote cells with different sizes to grow on the mesh and firmly securing the

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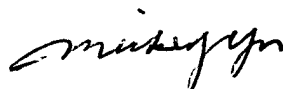
artificial joint to the femur. It would have been obvious matter of design choice to modify the femoral component of Morrey et al. to have an open-mesh three-dimensional structure partially covering the proximal face 31 of the basalar neck portion, since applicant has not disclosed that having the mesh partially covering the proximal face of the basalar neck portion solves any problem or is for any particular purpose and it appears that the prosthesis would perform equally well without the mesh partially covering the proximal face of the basalar neck portion.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hieu Phan whose telephone number is (703) 308-8969. The examiner can normally be reached on Mon.-Fri. from 8:30 a.m. to 6:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mickey Yu, can be reached at (703) 308-2672. The fax phone number for this group is (703) 305-3590.

Any inquiry of a general nature or relating to the status of this application or proceedings should be directed to the group receptionist whose telephone number is (703) 308-0858.



Mickey Yu
Supervisory Patent Examiner
Group 3700


Hieu Phan